

Experiment:- 8

(PREPARATION-2)

Aim:- To prepare 2,4,6-tribromoaniline from aniline.

Requirement: Aniline, bromine

Theory:

Aniline is easily brominated by treating with bromine in glacial acetic acid to yield 2,4,6-tribromoaniline. It is due to the activation effect produced by $-OH$ group which increases the electron density at *ortho* and *para* positions to a great extent.

Reaction:

Procedure:-

- 1) Dissolve 9.3 gm aniline in 100 mL alcohol by stirring the mixture with a glass rod
- 2) Add 15.9 mL bromine dropwise into it from a burette with constant stirring the mixture assumes light yellow colour.
- 3) The mixture is stirred well and add sodium bisulphate solution till light yellow colour disappear to destroy excess of bromine.
- 4) The white solid so obtained is filtered under suction
- 5) Wash well with water and recrystallise from ethyl alcohol and dry it.
- 6) Note down wt. of product ie x gm.
- 7) Calculate the % yield and note down the MP.

Calculation of % yield =

Theoretical yield

9.3 gm of aniline-----23.9 gm of 2,4,6-tribromoaniline

(0.1 mole)

Practical yield:

23.9 gm of 2,4,6-tribromoaniline ----- 100 % yield

(xgm) of 2,4,6-tribromoaniline ----- ? % yield

$$\% \text{ yield} = \frac{(x \text{ gm})}{23.9} \times 100$$

23.9

Result = Yield of 2,4,6-tribromoaniline = -----gm

M.P. of 2,4,6-tribromoaniline = -----⁰C.